Amendments to the Claims:

Listing of Claims:

1. (Currently amended) A method of logically partitioning a plurality of resources that are included in a single hardware channel adapter that is included in a System Area Network (SAN) ~~for use in a system area network~~, wherein said single hardware channel adapter is shared by different partitions, and wherein at least a first one of the plurality of resources is assigned to a first partition and at least a second one of the plurality of resources is assigned to a second, different partition, comprising:

storing, by a hypervisor, a first partition identifier that identifies the first partition in a first hardware register that is included within the at least [[a]] the first one of the plurality of resources, wherein the at least [[a]] the first one of the plurality of resources is assigned to the first partition; and

enforcing, by the hardware channel adapter, partitioning of the plurality of resources by allowing only third ones of the plurality of resources that have the first partition identifier stored in a hardware register that is included within the third ones of the plurality of resources to access the at least [[a]] the first one of the plurality of resources, wherein fourth ones of the plurality of resources that do not have the first partition identifier stored in a hardware register that is included within the fourth ones of the plurality of partitions cannot access the first one of the plurality of resources, and wherein the fourth ones of the plurality of resources include the at least [[a]] the second one of the plurality of resources[[.]]; and

wherein the hardware channel adapter is included in a node that includes a central processing unit, and wherein the hardware channel adapter couples the central processing unit to a switch.

2. (Currently amended) The method according to claim 1, further comprising the steps of:

attempting, by a fifth one of the plurality of resources, to access the at least [[a]] the first one of the plurality of resources;

comparing, by the hardware channel adapter, a second partition identifier that is stored in a second hardware register that is included in the fifth one of the plurality of resources to the first partition identifier;

allowing, by the hardware channel adapter, the fifth one of the plurality of resources to access the at least [[a]] the first one of the plurality of resources responsive to the second partition identifier matching the first partition identifier; and

ignoring, by the hardware channel adapter, the attempt by the fifth one of the plurality of resources to access the at least [[a]] the first one of the plurality of resources responsive to the second partition identifier not matching the first partition identifier, wherein the fifth one of the plurality of resources cannot access the at least [[a]] the first one of the plurality of resources, and wherein the fifth one of the plurality of resources is assigned to the second partition.

3.-6. (Canceled)

7. (Previously Presented) The method according to claim 1, further comprising the steps of:

requesting, by an operating system, a particular one of said plurality of resources of a particular type;

responsive to the request, selecting, by the hypervisor, a particular one of said plurality of resources that is said particular type;

responsive to the selection, determining a particular one of the partitions to which said operating system is assigned; and

responsive to the determination, storing, by the hypervisor, a particular partition identifier that identifies said particular one of the partitions in a hardware register within said particular one of said plurality of resources.

8. (Previously Presented) The method according to claim 7, further comprising the step of:

permitting only said hypervisor to alter contents of said hardware register.

9. (Canceled)

10. (Previously Presented) The method according to claim 1, further comprising the step of:

enforcing said partitioning using hardware within said hardware channel adapter.

11. (Currently amended) A system of logically partitioning a plurality of resources that are included in a single hardware channel adapter that is included in a System Area Network (SAN) ~~for use in a system area network~~, wherein said single hardware channel adapter is shared by different partitions, and wherein at least a first one of the plurality of resources is assigned to a second, different partition, comprising:

a hypervisor storing a first partition identifier that identifies the first partition in a first hardware register that is included within the at least [[a]] the first one of the plurality of resources, wherein the at least [[a]] the first one of the plurality of resources is assigned to the first partition; and

the hardware channel adapter enforcing partitioning of the plurality of resources by allowing only third ones of the plurality of resources that have the first partition identifier stored in a hardware register that is included within the third ones of the plurality of resources to access the at least [[a]] the first one of the plurality of resources, wherein fourth ones of the plurality of resources that do not have the first partition identifier stored in a hardware register that is included within the fourth ones of the plurality of resources ~~partitions~~ cannot access the first one of the plurality of resources, and wherein the fourth ones of the plurality of resources include the at least [[a]] the second one of the plurality of resources[[.]]; and

wherein the hardware channel adapter is included in a node that includes a central processing unit, and wherein the hardware channel adapter couples the central processing unit to a switch.

12. (Currently amended) The system according to claim 11, further comprising:

a fifth one of the plurality of resources attempting to access the at least [[a]] the first one of the plurality of resources;

the hardware channel adapter comparing a second partition identifier that is stored in a second hardware register that is included in the fifth one of the plurality of resources to the first partition identifier;

the hardware channel adapter allowing the fifth one of the plurality of resources to access the at least [[a]] the first one of the plurality of resources responsive to the second partition identifier matching the first partition identifier; and

the hardware channel adapter ignoring the attempt by the fifth one of the plurality of resources to access the at least [[a]] the first one of the plurality of resources responsive to the second partition identifier not matching the first partition identifier, wherein the fifth one of the plurality of resources cannot access the at least [[a]] the first one of the plurality of resources, and wherein the fifth one of the plurality of resources is assigned to the second partition.

13.-16. (Canceled)

17. (Previously Presented) The system according to claim 11, further comprising:

an operating system requesting a particular one of said plurality of resources of a particular type;

the hypervisor selecting a particular one of said plurality of resources that is said particular type responsive to the request;

said hardware channel adapter determining a particular one of the partitions to which said operating system is assigned responsive to the selection; and

said hypervisor storing a particular partition identifier that identifies said particular one of the partitions in a particular hardware register that is included within said particular one of said plurality of resources responsive to the determination.

18. (Previously Presented) The system according to claim 17, further comprising:

said hardware channel adapter permitting only said hypervisor to alter contents of said hardware register.

19. (Canceled)

20. (Previously Presented) The system according to claim 11, further comprising:

said hardware channel adapter enforcing said partitioning using hardware within said channel adapter.

21. (New) The method according to claim 1, wherein the hardware channel adapter is included in a fabric.

22. (New) The method according to claim 1, wherein the System Area Network (SAN) is an InfiniBand (IB) network.

23. (New) The system according to claim 11, wherein the hardware channel adapter is included in a fabric.

24. (New) The system according to claim 11, wherein the System Area Network (SAN) is an InfiniBand (IB) network.